TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER Granting the Application for Permit No. MSW-66B to Waste Management of Texas, Inc., TCEQ Docket No. 2006-1931-MSW, SOAH Docket No. 582-07-0863

On August 6, 2008 and September 10, 2008, the Texas Commission on Environmental Quality (Commission or TCEQ) considered the application of Waste Management of Texas, Inc. (Applicant) for Permit No. MSW-66B to authorize Applicant to laterally expand the existing Comal County Landfill in Comal County and into Guadalupe County, Texas, and to rename the facility the Mesquite Creek Landfill. Sarah G. Ramos, Administrative Law Judge (ALJ) with the State Office of Administrative Hearings (SOAH), presented a Proposal for Decision (PFD), which recommended that the Commission grant the application for Permit No. MSW-66B. After considering the ALJ's PFD, the Commission adopts the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

General Findings/Procedural Issues

1. The Applicant is Waste Management of Texas, Inc., 9708 Giles Lane, Austin, Texas 78754.

2. The facility is the Comal County Landfill, to be renamed the Mesquite Creek Landfill (Mesquite Creek Landfill), and is owned and operated by Applicant.

3. The facility is located at the southwest intersection of FM 1101 and Kohlenberg Lane, approximately five miles north of the intersection of State Highway 46 and FM 1101 and approximately two miles east of the I-35 Kohlenberg Road exit, north of the City of New Braunfels in Comal County.

4. The street address for the current site is 1000 Kohlenberg Lane, New Braunfels, Texas, but a new entrance is planned in the expansion.

5. The facility is an existing Type I Municipal Solid Waste (MSW) landfill consisting of approximately 96 acres and permitted pursuant to Permit No. MSW-66A.

6. Of the currently permitted areas on the site, Unit 3, which is not yet built, is on the westernmost side. Unit 1, which is nearly filled, is adjacent to Unit 3 to the east. The area for which Applicant seeks a permit, Unit 2, is on the easternmost side of the property.

7. Applicant has sufficient property rights in the facility to ensure right of entry until the end of the post-closure care period.

8. Applicant filed Application No. MSW-66B (application), which requests an amendment of Permit MSW-66A to laterally expand the existing 96-acre facility to approximately 244 acres and into Guadalupe County. The application proposes to expand the actual area of waste disposal from approximately 79 acres to approximately 164 acres.

9. The facility is currently authorized to accept municipal solid waste, Class 2 and Class 3 industrial solid waste, special waste as defined by 30 TEX. ADMIN. CODE (West 2006) (TAC) § 330.2 , and Class 1 industrial waste that is Class 1 only because of asbestos content.

10. Scott M. Graves, P.E., a professional engineer registered in Texas, affixed his seal to all engineering plans and drawings and on the application cover pages.

11. The application was initially submitted to the TCEQ on November 18, 2005.

12. On December 13, 2005, the Executive Director (ED) issued notice that the application was deemed administratively complete, and on August 23, 2006, the ED issued notice that the application was found technically complete.

13. The Notice of Receipt of Application and Intent to Obtain Municipal Solid Waste Permit Amendment containing the information specified in 30 TAC § 39.11 was published on December 19, 2005, in the *San Antonio Express News*.

14. The Revised Notice of Application and Preliminary Decision for a Municipal Solid Waste Permit Amendment containing the information required by 30 TAC § 39.11 was published on August 29, 2006, in the *New Braunfels Herald-Zeitung* and the *Seguin Gazette-Enterprise*.

15. The Notice of Hearing containing the information specified in 30 TAC § 39.11 was published on March 12 and 13, 2007, in the *New Braunfels Herald-Zeitung*, the *Seguin Gazette-Enterprise*, and the *San Antonio Express News*.

16. A combined notice including the Notice of Receipt of Application and Intent to Obtain Permit, Notice of Application and Preliminary Decision, Notice of Public Meeting, and Notice of Hearing was issued by TCEQ on March 8, 2007, and published on March 12 and 13, 2007, in the *New Braunfels Herald-Zeitung*, the *Seguin Gazette-Enterprise*, and the *San Antonio Express News*.

17. On March 9, 2007, the TCEQ Chief Clerk mailed the Notice of Hearing on the application to the then-identified participants to the proceeding, to other potentially affected persons identified in the application, to various state and local agencies and officials, to state legislators for the district in which the facility is located, and to other persons specified in 30 TAC § 39.13. Potentially affected persons receiving notice generally included those landowners whose property was within one mile of the facility.

18. The preliminary hearing was conducted on April 13, 2007, at the New Braunfels Municipal Court, 1486 South Seguin Avenue, New Braunfels, Texas 78130.

19. The following persons were named as parties to the proceeding: Applicant, the ED, the Office of Public Interest Council (OPIC); TJFA, L.P. (TJFA); the City of New Braunfels; Guadalupe County; and Concerned Citizens and Landowners (CCL) (representing Nancy Schwarzlose, the Holtman family, Sandra Elbel Taylor and Lilian Schriewer Elbel, James F. and Vera B. Langford, and the Krueger-Westmeyer families). Guadalupe County was named as a party but withdrew its party status during the hearing, after it had reached a settlement agreement with Applicant about the facility's operating hours.

20. A contested case hearing on the application was conducted on October 22-29, 2007, at the offices of the State Office of Administrative Hearings, William Clements Building, 300 West 15th Street, Austin, Texas 78701 and the New Braunfels Municipal Court, 1486 South Seguin Avenue, New Braunfels, Texas 78130.

Sufficiency of Permit Application and Draft Permit

21. There are no site-specific conditions that require special design consideration.

22. Applicant coordinated with all appropriate agencies, officials, and authorities that may have a jurisdictional interest in the application.

23. Applicant has provided complete information concerning permits or construction approvals received or applied for.

24. The ED has prepared a draft permit for Permit No. MSW-66B.

Geology and Hydrogeology Investigations

25. The facility is located along the western edge of the Gulf Coastal Plain physiographic province, in the Blackland Prairies subprovince.

    a. The Gulf Coastal Plain is located south of the Balcones Fault Zone, which trends northeast-southwest across north central Comal and Guadalupe Counties and separates the Gulf Coastal Plain from the Edwards Plateau.
    b. The Blackland Prairies subprovince is the westernmost subprovince within the Gulf Coastal Plain and is characterized by a hilly to rolling prairie surface covering deep clayey soils.

26. The topography of the area surrounding the facility is composed of two natural hillsides towards the northwest and southeast ends of the site, which are separated by a valley associated with Mesquite Creek in the middle of the site.

    a. The highest natural ground elevation on the northern side of the facility is approximately 665 feet above mean sea level (ft/msl); and on the southern side, it is 712 ft/msl.
    b. The lowest natural ground elevation of approximately 585 ft/msl occurs in the middle of the site, along the northern site boundary, which is the point at which Mesquite Creek leaves the site.
    c. There are no topographic features such as floodplains, which, if present, would limit the development of the site as an MSW landfill.

27. The regional geology of the facility's surrounding area consists of Cretaceous, Tertiary, and Quaternary-age limestone, marls, calcareous marine clays, and fluvial deposits. Below the veneer of alluvium and undifferentiated gravel (Uvalde Gravel) are the Cretaceous-age

Lower Taylor, the Austin Chalk or Austin Group, the Eagle Ford Group, the Washita Group, the Edwards Group, and the Trinity Group.

28. The Edwards Aquifer is the principal regional aquifer in the facility's vicinity and for the entire New Braunfels region.

a. The Edwards Aquifer comprises the Edwards Limestone and the overlying Georgetown Limestone.
b. The overlying Gulfian Series formations have a low permeability and are too clayey to be used as an aquifer.
c. The Quaternary terrace deposits overlying the facility yield insufficient water to be considered an aquifer. The facility is located south of the freshwater part of the Edwards Aquifer in an area characterized by high sulfate and dissolved solids concentrations.

29. In the facility's vicinity, the Lower Taylor Group, Austin Chalk, Eagle Ford Shale, Del Rio Clay, and Buda Limestone serve as an aquitard, separating the ground surface from the top of the Edwards Aquifer.

30. The facility is located in a geologically stable area that is not subject to active geologic faulting, differential subsidence, or seismic movement.

a. The facility is not near an active fault area, and no surface expressions or differential subsidence that has had displacement in Holocene time were identified within 200 feet of the facility.
b. No earthquake epicenters were identified within 20 miles of the facility.
c. No subsidence is expected from withdrawal of water from the Edwards Aquifer.
d. The facility is not subjected to any natural or man-induced events that could reactivate the pre-Holocene inactive faults.

31. One inactive fault was identified on the existing landfill area in 1990 near the northern site boundary in an area excavated for landfill development.

a. The faults' vertical displacement is approximately 40 to 50 feet and the displacement affects only the contact between Strata III and IV.

b. The fault does not displace Stratum I or II; therefore, the movement of the fault ceased before deposition of Stratum II, indicating that the fault has been inactive during Holocene time.

32. Two additional potential faults, 200 feet and 450 feet southeast of the facility, were identified in previous geologic studies of the existing landfill.

a. The 200-foot potential fault is an inferred fault and geologic studies show that no fault is present in the proposed expansion area.

b. The 450-foot fault has not experienced movement in Holocene time, as indicated by its consistency with other faults in the Balcones Fault Zone, which is pre-Holocene in age.

33. The facility's pre-development surface had low relief, with slopes ranging from approximately 3% to 9%.

a. Excessive erosion due to surface-water processes such as overland flow, channeling, and gullying is not anticipated.

b. The waste disposal limits of the currently permitted landfill and proposed expansion are not located in a 100-year floodplain; therefore, excessive erosion by fluvial processes associated with meandering stream channels should not occur within the waste footprint.

34. Nineteen wetlands were identified at the facility, including both the existing and the expansion areas.

a. Eight of the 19 identified wetlands are jurisdictional waters of the United States (jurisdictional waters). Of these eight waters, four are also state wetlands regulated by TCEQ.

b. Six of the eight identified jurisdictional waters will be impacted by the proposed expansion and, if so determined by the United States Army Corps of Engineers (USACE), will require permitting and likely require mitigation before these waters can be disturbed.

c. At present, the USACE has not determined over which jurisdictional waters it will exercise jurisdiction and has also not indicated a time frame for its determination.

35. A revised USACE Nationwide Permit 14 Pre-Construction Notification was submitted to the USACE on June 7, 2007, for the unavoidable impact to approximately 0.10 acres of jurisdictional waters due to the expansion of the road crossing over Mesquite Creek, and the USACE granted the Nationwide Permit 14 on September 14, 2007.

36. In the vicinity of the facility, the upper Edwards Aquifer units are approximately 500 to 600 feet below the ground surface.

a. Three water wells were identified within one mile of the facility. Two of these wells are 600 and 650 feet deep and are screened in the Edwards Aquifer.

b. The use of the 600-foot well is not specified, and the 650-foot well has been plugged.

c. The third well is 36 feet deep and documented as being completed in the Uvalde Gravel and used for domestic purposes.

37. Subsurface conditions at the facility were evaluated using existing geologic data generated from past field investigations and from field investigations performed in October 2004 through September 2005, in connection with the proposed expansion.

a. A total of 65 soil borings were drilled at the facility, 24 of which relate to the expansion area.
b. Completed depths ranged from 28 feet below ground surface (ft/bgs) to 185 ft/bgs.
c. Boring samples were taken at discrete intervals and continuously.

38. The elevation of the deepest excavation (EDE) for the entire facility is 560 ft/msl and has already occurred at the facility. It is located at the Unit 1, Phase III, Cell 2 sump.

a. Of the eight previous borings proposed as part of the application, seven were drilled to a depth at least five feet below the EDE, and one was drilled to a depth at least 30 feet below the EDE.
b. All 24 of the expansion area soil borings were advanced to a depth of at least five feet below the EDE, 16 borings were drilled to a depth of at least 30 feet below the EDE, and five were completed to elevations more than 50 feet below the EDE.

39. Fifteen of the expansion area soil borings were advanced and completed as piezometers.

40. Monthly groundwater level data were collected from March 2005 to September 2005 from existing and newly installed piezometers and groundwater monitor wells.

41. Based on the historic and recent geologic investigations, four stratigraphic units, Strata I through IV, exist beneath the site down to the maximum depth drilled, approximately 187 ft/bgs.

a. Stratum I is generally 0 to 14.5 feet thick, the thickness of Stratum II ranges from 1 to nine feet, and Stratum III is approximately 15 to 63 feet thick.

b. No soil borings penetrated the entire Stratum IV, but it is approximately 200 feet thick at the facility.

42. Stratum I corresponds to the uppermost fine-grained Quaternary deposits; it is mostly continuous in the existing site except where removed by landfill excavation activities.

a. In the expansion area, Stratum I was encountered in 20 of the 24 borings. Stratum I is an unsaturated brown to dark gray, medium-to-high plasticity clay with a stiff-to-hard consistency.

b. In two borings, 0.5 and 1.0 feet of gravelly clay was present between 0.5 and 3.5 ft/bgs.

43. Stratum II corresponds to the Quaternary-Tertiary Uvalde Gravel.

a. In the existing area, Stratum II ranges from olive green, white or gray limestone and/or chert gravel, occasionally in a clay or silty clay matrix, to firm black clayey gravel.

b. In the expansion area, Stratum II is clayey gravel to gravelly clay.

c. A one-foot thick gravel stratum was observed in one soil boring at approximately one ft/bgs.

44. Stratum III corresponds to the oxidized clays or claystones of the Lower Taylor Group, which was previously referred to as the Navarro Group.

a. Stratum III ranges in thickness between 18 and 58.5 feet at the existing site and between 15 and 63 feet at the expansion area.

b. Stratum III is characterized by a gray or brownish yellow to yellow oxidized, very stiff-to-hard clay with thin bedding planes.

c. The base of Stratum III was not encountered in every boring.

d. High angle clay, gypsum filled fractures, and calcite seams are more prevalent near the bottom of Stratum III.

e. Some of the fractures and calcite seams are water-bearing.

45. Stratum IV corresponds to the primarily unoxidized clay and/or claystone of the Lower Taylor Group.

a. Stratum IV is typically a dry, calcareous, green gray to dark gray clay or claystone across the entire site.

b. A few borings in Stratum IV contained evidence of fracturing and/or weathering.

46. At the facility, groundwater was encountered in the lower portion of Stratum III between 578 and 665 ft/msl.

a. Of the four units investigated, Stratum III is the uppermost stratum which consistently yielded groundwater and contained the greatest occurrence of fractures and variations in cementation to provide the most likely migration pathway if a release from the landfill were to occur.

b. All 15 of the installed piezometers consistently contained sufficient quantities of water for groundwater sampling purposes.

c. Because Stratum III is capable of yielding representative samples of groundwater that could identify a potential release from the landfill, it is considered the uppermost aquifer (30 TAC § 330.231(a)).

47. Hydraulic gradients and groundwater flow directions observed at the facility appear to be controlled by surface topography and the elevation of the Stratum III/IV contact.

a. Groundwater elevations in the existing site and expansion area are lowest adjacent to Mesquite Creek and highest near the site's topographic highs in the northeastern corner (for the existing landfill) and the southern boundary (for the expansion area).

b. Groundwater elevations depict a consistent pattern over time with only slight changes in groundwater flow direction.

c. Recharge to Stratum III likely occurs as infiltration during periods of high precipitation.

d. No noteworthy seasonal changes in the groundwater flow patterns are apparent.

48. The uppermost aquifer is not hydraulically connected with the underlying Edwards Aquifer.

a. Monitoring wells and piezometers in Stratum IV were dry or contained insufficient quantities of groundwater for sampling purposes, and the unit has relatively low permeability.

b. In the vicinity of the facility, Stratum IV is approximately 200 feet thick and underlain by approximately 200 to 300 feet of low-permeability clays.

c. Stratum IV and the underlying clays are, collectively, the lower aquitard or confining unit for Stratum III.

49. The most likely pathways for pollutant migration from the landfill are within the saturated base of Stratum III and along the Strata III/IV contact.

a. Stratum III is the main stratum intersected by the liner system side slopes and base.

b. Neither the inactive fault in the existing site nor Mesquite Creek appear to be potential pathways for pollutant migration.

c. Any contaminant released from the landfill would move at the same rate and direction as the groundwater beneath the facility.

d. Because the horizontal and vertical hydraulic conductivities decrease with depth, there is no potential for landfill constituent migration from the facility to the Edwards Aquifer during the active life, closure, and post-closure care periods.

Groundwater Monitoring

50. The facility currently operates a groundwater monitoring system for detection monitoring composed of seven monitoring wells generally screened in Stratum III.

51. Groundwater monitoring has been conducted at the facility since February 1992 and is currently conducted on a semi-annual basis.

52. Historical groundwater quality data indicate that all statistically significant changes over background of the inorganic parameters listed in the Groundwater Sampling and Analysis Plan (GWSAP) have been addressed in an alternate source demonstration approved by TCEQ.

a None of the statistically significant failures were found to be related to the facility, but were attributed to natural variations in background water quality.

b. No statistically significant changes over background for the organic compounds have triggered assessment monitoring in any well at the facility nor any corrective action.

53. Groundwater analyses indicated that there is presently no known plume of contamination that has entered the groundwater from the facility.

54. Groundwater and flow directions at the permitted facility and lateral expansion area are consistent with flow mainly toward the Mesquite Creek area, which is centrally located between the existing and proposed waste footprints.

a. The proposed groundwater monitoring system for the facility is comprised of two physically separate groundwater monitoring systems that collectively serve as the groundwater monitoring system for the entire site.

b. All 22 of the monitoring wells in the proposed groundwater monitoring network are or will be completed in Stratum III.

55. The existing facility monitoring network will use a total of eight monitoring wells, one upgradient and seven downgradient; four of the currently permitted monitoring wells will remain, one permitted monitoring well will be moved 500 feet to the southeast to make it a downgradient well, and three new monitoring wells will be installed downgradient.

56. The expansion area's monitoring network has two upgradient wells and 12 downgradient wells for a total of 14 groundwater monitoring wells.

57. Three of the piezometers installed as part of this application will be converted to wells and 11 new monitoring wells will be installed along the perimeter of the expansion property.

58. A relevant point of compliance has been established for each portion of the groundwater monitoring system.

a. The seven downgradient groundwater monitoring wells in the existing facility monitoring network will form the point-of-compliance boundary for Units 1 and 3.

b. The 12 downgradient groundwater monitoring wells in the expansion area monitoring network will form the point of compliance boundary for Unit 2.

59. The proposed monitoring wells will be:

- activated after the permit amendment is approved to collect intra-well background data;

- properly screened to monitor the groundwater encountered at the monitored location;
- able to detect a release from the facility.

60. The GWSAP provides for collecting representative samples from groundwater monitoring wells and quality assurance/quality control procedures required to ensure valid analytical results; it also includes methodology for establishing background water quality in each well and for comparison of the subsequent results to background values in the same well so that any statistically significant increase may be detected.

Groundwater Protection

61. The proposed expansion of the facility is designed to be protective of groundwater.

a. Quality control procedures will be used during the construction and installation of the liner system.

b. A Soil and Liner Evaluation Report (SLER) and/or a Geomembrane Liner Evaluation Report (GLER) will be submitted to TCEQ detailing the final construction and lining of a new disposal cell prior to the placement of any waste in that cell.

62. The composite liner system for Unit 2, the area of proposed expansion, will consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec overlain by a minimum 60-mil high-density polyethylene (HDPE) geomembrane, a leachate drainage layer of either geocomposite (geonet bonded to geotextiles) or geotextile, and a minimum 2-foot thick protective soil layer.

63. The un-built but permitted Unit 3 will have either the same liner system proposed for Unit 2 or an equivalent alternate that uses a geosynthetic clay liner instead of the compacted soil layer.

64. For Units 2 and 3, leachate percolating through the waste will be collected in a drainage layer constructed above the liner and will flow by gravity to a leachate collection corridor or sideslope chimney drain.

a. The leachate collection system materials are expected to be chemically resistant to the anticipated leachate and of sufficient strength to prevent collapse of the leachate collection drainage layers due to the pressures exerted by overlying materials.

b. The leachate collection components are designed to function through the active life, scheduled closure, and post-closure care period.

c. The proposed leachate collection corridors, centrally located within each phase of Unit 2 and within Unit 3, will collect leachate from the floor drainage layer and convey it to the leachate collection sumps.

d. The leachate collection corridor will consist of either granular drainage media encased within a geotextile filter or a perforated six-inch diameter HDPE SDR-11 pipe embedded within a granular drainage media encased within a geotextile filter.

e. Collected leachate within each phase will be carried to the leachate collection sump located at the low point of the phase.

f. The leachate collection system for Units 2 and 3 is designed to maintain a head of less than 30 cm (12 inches) over the liner system.

g. Leachate recovered from sumps will be pumped directly into a tanker truck and disposed off site at a TCEQ-approved treatment facility, recirculated, or pumped through a force main system to leachate evaporation ponds or other on-site storage or treatment facilities.

65. Leachate will be recirculated only on landfill areas that have a liner that complies with 30 TAC § 330.299(a)(2).

66. The minimum strength values for the liner and final cover systems are incorporated into the Soil and Liner Quality Control Plan (SLQCP).

67. A factor of safety is a ratio of resisting forces compared to driving forces.

68. When waste is placed too steep or too high, the waste can move along the liner system upon which it is placed. Minimum acceptable safety factors for slope stability depend on project-specific conditions and uncertainties.

69. Applicant's targeted slope safety factors for interim conditions is 1.25, and for long-term conditions, it is 1.5.

70. For Unit 1, a 1.25 targeted factor of slope safety for final landfill slopes is appropriate based on project-specific liner testing and measured strength parameters demonstrating the safety of this slope.

71. For large-displacement strengths, a 1.0 target factor of safety is appropriate for short-term conditions and 1.15 for long-term conditions.

72. The SLQCP specifies materials, equipment, and construction methods for the compacted soil liners; details installation methods and quality control testing and reporting for the flexible membrane liners; provides guidance necessary for testing and reporting evaluation procedures for the person preparing the SLER and/or the GLER; and describes implementation procedures.

73. Liner excavations will extend into Stratum III and portions of the liner may be constructed below the seasonal high water table.

a. Stratum III is of such low permeability that groundwater cannot move sufficiently to exert a force that would damage the liner.
b. Should localized sweeps or wet areas occur during excavation, the affected areas will be over-excavated and backfilled/compacted with competent material.

c. If fracture water is observed in the clay and claystones during construction which could exert an uplift force on the liner, an evaluation will be made regarding the magnitude of groundwater present and, if needed, the construction of liner systems will incorporate short-term groundwater control and ballasting as described in the SLQCP.

d. If short-term liner stability is needed, long-term liner stability will be accomplished by the presence of soil and/or waste ballast.

e. After construction of the liner and placement of ballast, the pressure relief/de-watering system will be terminated.

Drainage and Floodplain Analyses

74. The facility is designed and will be constructed to prevent the discharge of any solid wastes or pollutants adjacent to or into waters of the State of Texas or the United States, non-point source pollution of the waters of the United States, and discharge of dredged or fill material into waters of the State of Texas or the United States in violation of Section 404 of the Clean Water Act.

75. Surface water controls at the proposed expansion will be designed to prevent rainfall run-off from coming in contact with leachate or refuse, maintain natural drainage patterns, and minimize erosion.

76. The Groundwater and Surface Water Protection Plan and Drainage Plan shows the locations, details, and typical sections of the surface drainage controls at the facility consisting of drainage benches and terraces, channels, detention ponds, culverts, berms, and other facilities.

77. Applicant has received Texas Pollutant Discharge Elimination System (TPDES) Multi-Sector Permit No. TXR05K953, in compliance with the federal Clean Water Act § 402, as amended, and the National Pollution Discharge Elimination System.

78. No contaminated water will be discharged without authorization by TCEQ and in accordance with the TPDES permit.

79. The landfill will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

a. The waste disposal limits of the facility are located outside the 100-year floodplain, as shown on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Community Panel Number 4854630130C (1986).

b. The central portion of the site associated with Mesquite Creek is within the flood pool of the downstream Freedom Lake.

c. The permitted waste disposal limits and the expansion area's waste disposal areas, perimeter roads/berms, and leachate evaporation pond areas do not extend into the Freedom Lake flood pool.

d. Two storm water ponds are partially within the upper elevations of this flood pool, but are designed to allow backflow into the ponds during a flood event through their principal spillway pipes so as not to change the flood storage capacity of Freedom Lake.

e. Flood protection levees or other improvement to provide protection from the 100-year flood are not necessary.

80. There will be no nonpoint source of pollution that will violate any requirement of any areawide or statewide water quality management plan approved under the federal Clean Water Act.

81. Applicant will use working face berms, drainage benches, or a combination of the two to control and minimize any contact between surface waters and solid waste.

82. Run-off from undeveloped, closed, or final or intermediate covered portions of the site will be controlled using berms, channels, and storage pond areas to prevent flow onto the active portion of the landfill during the peak discharge from the 24-hour, 25-year storm.

a. Uncontaminated water may be used for site operations, evaporated naturally, or discharged offsite as authorized under TCEQ and TPDES permits.
b. A Storm Water Pollution Prevention Plan has been developed and implemented for the construction and operation of the facility.

83. The entire site is part of the Mesquite Creek Watershed.

a. The natural site condition consists of five drainage basins.
b. The pre-development watershed condition incorporates the currently permitted surface water management system within the 96-acre permit area, and the remainder of the watershed area is the same as the natural site condition, including offsite areas and the proposed expansion area.
c. The post-development condition will maintain similar drainage patterns to the natural site and pre-development conditions.
d. For all three conditions (natural, pre-development, and post-development), five locations were identified to represent the points of concentrated discharge of storm water from the site.

84. The natural drainage patterns will not be significantly altered as a result of the landfill development; an increase in run-off volume will occur for three discharge points, but the post-development discharge rate will be less than the pre-development discharge rate.

85. The surface water management system design with its perimeter drainage channels, storm water ponds, and diversion berms will be used during development and operation of the facility and will ultimately transport sediments from the final cap or interim cover slopes to storm water ponds.

86. Best management practices will be used to further minimize soil erosion and sedimentation during the development and operational periods.

87. Applicant's drainage facility maintenance plan consists of periodic inspections of surface water facilities and repair of those which have been impacted by erosion or other causes; provisions of the Erosion and Sediment Control Plan will be incorporated into the drainage facility maintenance plan, as appropriate.

Geotechnical Investigation

88. Stratum I soil is suitable for soil liner and infiltration layer material, as demonstrated by the successful construction over a portion of the existing facility of a cover system infiltration layer having a hydraulic conductivity less than 1×10^{-7} cm/sec.

89. Strata III and IV soils will be suitable for use in liner system and final cover system construction; the hydraulic conductivities for Strata III and IV ranged from 2.8×10^{-8} to 3.5×10^{-8} cm/sec.

90. The facility will be stable if designed and constructed as proposed in the application.

91. For all conditions evaluated, the calculated factor of safety is greater than or equal to the minimum target factor of safety.

92. Since positive drainage will be maintained, calculated foundation settlements beneath the landfill are considered acceptable.

a. The highest differential settlements along the leachate collection corridor will occur where the corridor is underlain by the thickest, most compressible materials, *i.e.*, the Stratum III clays, and the differential loads along the corridor are the greatest.

b. The minimum calculated post-settlement slope for the evaluated sections in Units 1, 2, and 3 is 0.4%.

Site Operating Plan

93. The entire application – including the site development plan, Site Operating Plan (SOP), final closure plan, post-closure care plan, landfill gas management plan, and any other required plan – will be placed into the facility's site operating record and will become operational requirements for the facility.

94. All information placed in the operating record of the facility will be retained for the life of the facility, including the post-closure period.

95. After Applicant requested authorization to operate its facility 24 hours a day, seven days a week, it entered into a settlement agreement with Guadalupe County by which it agreed to conduct operations on Monday through Friday from 4:00 a.m. to 8:00 p.m. and on Saturday form 4:00 a.m. to 3:00 p.m., unless an emergency requires extended operating hours.

96. Even though Applicant plans buffer zones around the premises, continuous operations could be disturbing to nearby residents.

97. The operating hours in the settlement agreement will provide Applicant with several more hours per day for waste acceptance activities than Applicant currently has.

98. Applicant has been operating for many years with fewer waste acceptance hours than those described in the settlement agreement.

99. Applicant's waste acceptance hours should be limited to those stated in its agreement with Guadalupe County.

100. During emergency conditions, Applicant may seek the ED's approval of alternate operating hours.

101. Actual facility operating hours in effect at any given time will be posted at the entrance.

102. Applicant will cover portions of the working face with soil throughout the day, as filling operations are completed in one area of the working face and expanded into another.

103. Only part of the working face will be uncovered at any given time.

104. Applicant must have sufficient on-site equipment to place a six-inch layer of earthen material on any uncovered waste within one hour of detecting a fire.

105. Special waste will be received at the facility in accordance with the Special Waste Acceptance Plan and the permit.

106. Class 1 regulated asbestos-containing material will be accepted for disposal within the fill area and is specifically approved for this facility. Procedures regarding acceptance and handling of asbestos are outlined in the Asbestos Management Plan.

107. Wastes specifically prohibited from landfill disposal will not be accepted for disposal.

108. The SOP contains procedures to ensure that regulated hazardous and PCB wastes will not be accepted at the facility.

109. To prevent the disposal of unauthorized waste at the facility, the SOP provides that the Applicant will post signs regarding hazardous and other unacceptable wastes, screen incoming waste at the gate or offsite before disposal, provide personnel training, reject haulers carrying unauthorized wastes, and perform random sampling in accordance with the random inspection procedures for the facility.

110. Access to the facility will be controlled using artificial barriers, including a perimeter fence and a gated entrance.

a. The gated entrance will restrict access when the facility is not open, but allow sufficient access for vehicles to maneuver through the gate when the facility is open.

b. The perimeter fence will consist of chain-link fence at least five feet in height.

111. The unloading of waste will be restricted to the active working face, and the working face will be confined to as small an area as practical.

112. A trained employee will be present at the entrance at all times during operating hours to monitor all incoming loads of waste and will direct traffic to the appropriate unloading area.

113. The working face will be maintained and operated in a manner to control windblown solid waste.

a. Daily cover or the approved equivalent, litter fences, and litter collection will be employed to protect the working face from prolonged exposure.

b. A minimum of six-inches of daily cover will be used in order to prevent disease vectors, control windblown debris and odors, reduce the possibility of fire, prevent scavenging, and improve the operation of the facility.

114. Solid waste unloading, storage, disposal, or processing operations may not take place within any easement that crosses the site or within any buffer zone.

115. The landfill operator will take the necessary steps to ensure that vehicles hauling waste to the site properly secure the load in order to prevent the escape of any part of the load.

116. The operator will, as necessary, post signs at the landfill entrance requiring loads to be covered or enclosed and stating the potential consequences for non-compliance, including assessing litter control surcharges.

117. On a daily basis during daylight hours when the facility is in operation, all public roads and rights-of-way serving the facility will be inspected and cleaned of spilled materials and wind blown waste for a distance of two miles in either direction from any entrance used for the delivery of waste to the site. This litter pick-up area will extend along Kohlenberg Lane, FM 1101, and Schwarzlose Lane.

118. The landfill manager will ensure that no unit of the landfill violates any applicable requirements of the approved state implementation plan under the federal Clean Air Act.

a. The facility has applied for a TCEQ Title V General Operating Permit and is operated in accordance with a TCEQ Air Permit by Rule Registration O. 50924 for the landfill gas flare.

b. No open burning of waste will be permitted on-site.

119. Applicant will institute an odor management plan that uses a combination of identifying the sources of odor and methods to minimize or eliminate those odors; methods to achieve these objectives include waste and leachate handling procedures, timely placement of cover materials, the elimination of ponded water, and gas control.

120. Vector control will be achieved through application of daily cover, eliminating ponded water, minimizing the working face, and if necessary, application of appropriate chemicals using appropriate health and safety practices. Non-lethal bird control measures such as pyrotechnics, baiting and decoys, may be used to discourage birds at the site.

121. Applicant will minimize the tracking of any mud and trash by vehicles entering or exiting the facility onto public roadways. Vehicles will traverse all-weather site access roads and paved site entrance roads allowing for mud to be removed from the vehicle.

122. No scavenging will be permitted.

123. Salvaging will be allowed with specific authorization from the landfill manager in accordance with the SOP, but will not be allowed to interfere with prompt sanitary disposal of solid waste or to create a public health nuisance.

124. Landfill gas will be monitored and controlled in accordance with the Landfill Gas Management Plan.

125. Ponding of water over waste areas will be minimized and eliminated.

a. The area in which the ponding occurred will be filled in and regraded within seven days of the occurrence.

b. Ponded water from an area with at least 12-inches of intermediate cover will be pumped or otherwise removed to the facility's drainage system.

c. The ponding prevention plan will use high density compaction during placement of the wastes along with constructing and maintaining proper cover and slope on all areas to prevent ponding over waste areas.

126. The SOP prohibits discharge of contaminated water without specific written authorization from TCEQ; water that has become contaminated by contact with the working face or with leachate shall be segregated from uncontaminated surface and groundwater and properly managed.

Transportation

127. The roadways in the vicinity of the facility are adequate to handle the existing and projected future traffic.

a. Access to the facility is provided via FM 1101 to Kohlenberg Lane.

b. FM 1101 is primarily accessed from the south via Highway 46, from the west via I-35 to Kohlenberg Road, or from the north via Highway 123.

c. FM 1101 is a 24-foot wide, two-lane undivided, asphalt-paved road. Kohlenberg Lane is an approximately 22-foot wide, two-lane, undivided, asphalt-paved road.

128. Applicant notified the Texas Department of Transportation regarding the proposed expansion, and the agency determined that the impact on the surrounding area roadways as a result of the proposed expansion would be minimal.

129. The current site entrance is off Kohlenberg Lane in Comal County, and the proposed entrance is on the same road but across the Guadalupe County line.

130. The proposed site entrance, which is near a bend and at a dip in the road, may not comply with line-of-sight standards established by the American Association of State and Highway

Transportation Officials (AASHTO), which require approximately 70 meters of sight distance before a turn.

131. Applicant agreed that, prior to construction of the new site entrance, it will submit documentation to TCEQ showing that entrance will meet AASHTO standards.

132. Prior to constructing the proposed new site entrance, Applicant will submit its design to the Executive Director, and the entrance must meet the line-of-sight requirements established by the American Association of State and Highway Transportation Officials

133. The U.S. Department of Transportation Federal Aviation Administration issued a "Determination of No Hazard to Air Navigation" for the lateral expansion and for the currently permitted landfill.

Land Use

134. The land use information provided in the application contains the technical information specified in 30 TAC § 330.53(b).

135. The United States Department of the Interior Fish and Wildlife Service confirmed that the facility is not located within designated critical habitat of any federally-listed threatened or endangered species.

136. The Mountain Plover, a bird species identified as rare, previously has been sighted in the general area near the landfill.

137. Mountain Plovers are known to frequent plowed fields and areas of disturbance.

138. While the Texas Parks and Wildlife Department (TPWD) does not anticipate adverse impacts to any threatened or endangered species from the proposed project activities, TPWD recommended measures to avoid impacts to the Mountain Plover that could prevent the listing of the species in the future.

139. The TPWD's recommendation included educating landfill personnel about Mountain Plovers so that adverse impacts to the species are avoided.

Reporting and Transcription Costs

140. Applicant will be the primary beneficiary of the application's approval.

141. Applicant and TJFA participated significantly in the hearing.

142. [Deleted]

143. As statutory parties to the proceeding who cannot appeal the Commission's decision, the ED and OPIC, by rule, cannot be assessed reporting or transcription costs. TEX. WATER CODE ANN. §§ 5.228, 5.273(a), 5.275, and 5.356; 30 TAC § 80.23(d)(2).

144. The ED's participation was limited to providing information to complete the administrative record.

145. Protestant CCL is comprised of individual landowners whose financial means are, presumably, more limited than those of the corporate parties, and CCL did not participate significantly in the questioning of witnesses at the hearing.

146. Applicant was billed $15,192 in reporting transcription costs for the preliminary hearing and hearing on the merits.

147. Of that total cost, $8,999.05 was for daily delivery of the transcript, which Applicant requested.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the disposal of municipal solid waste and the authority to issue this permit under TEX. HEALTH & SAFETY CODE ANN. § 361.061.

2. Notice was provided in accordance with TEX. HEALTH & SAFETY CODE ANN. § 361.0665, 30 TAC §§ 39.5 and 39.101, and TEX. GOV'T CODE ANN.§§ 2001.051 and 2001.052.

3. SOAH has jurisdiction to conduct a hearing and to prepare a Proposal for Decision. TEX. GOV'T CODE ANN. § 2003.47.

4. Applicant submitted a complete permit amendment application, as required by TEX. HEALTH & SAFETY CODE ANN. §§ 361.066 and 361.068, which demonstrated that Applicant will comply with all relevant aspects of the application and design requirements as provided in 30 TAC §§ 330.4(m) and 330.51(b)(1).

5. The application was processed and the proceedings described in this Order were conducted in accordance with applicable law and rules of the TCEQ, specifically 30 TAC § 80.1 *et seq.*, and the State Office of Administrative Hearings, specifically 1 TAC § 155.1 *et seq.*, and Subchapter C of the TEX. HEALTH & SAFETY CODE ANN. Chapter 361.

6. The evidence in the record is sufficient to meet the requirements of applicable law for issuance of the Draft Permit, as modified by this Order, including all requirements of the Solid Waste Disposal Act, TEX. HEALTH & SAFETY CODE ANN. Chapter 361, and 30 TAC Chapter 330.

7. The expansion of the proposed Mesquite Creek Landfill, if constructed and operated in accordance with the Solid Waste Disposal Act, 30 TAC Chapter 330, and the Draft Permit as modified by this Order, will not adversely affect public health and welfare, physical property of the people of Texas, or the environment.

8. The application conforms to the applicable requirements of the Engineering Practice Act, TEX. REV. CIV. STAT. ANN. art. § 3271a, as provided in 30 TAC § 330.51(d) and 22 TAC § 131.166.

9. Applicant should be required to pay the cost of daily delivery.

10. The remaining cost of $6,192.95 should be equally divided between Applicant and TJFA.

11. Transcription costs of $3,096.47 should be assessed to TJFA and $12,095.53 should be assessed to Applicant.

12. Prior to construction of the new site entrance, Applicant should submit documentation to TCEQ showing that the entrance will meet AASHTO standards.

13. The SOP should provide that, as part of regularly scheduled training, Applicant will instruct its key site personnel about Mountain Plovers so that adverse impacts to the species may be avoided.

14. The facility's waste acceptance hours should be Monday through Friday from 4:00 a.m. to 8:00 p.m. and Saturday from 4:00 a.m. to 3:00 p.m., unless an emergency requires extended waste acceptance hours. Transportation of materials on- and off-site and operation of heavy equipment should be allowed Monday through Saturday, from 4:00 a.m. to 9:00 p.m., and on Sunday from 5:00 a.m. to 9:00 p.m. Other activities should not be limited to specified hours and may be conducted by the facility, as necessary, at any time.

15. Pursuant to the authority of, and in accordance with, applicable laws and regulations, the requested permit should be granted.

EXPLANATION OF CHANGES

1. The Commission made non-substantive, typographical corrections to Finding of Fact Nos. 20, 32, 37.b., 58.b., and 143 consistent with the Applicant's exceptions, which were agreed to in writing by the ALJ by letter dated May 5, 2008. In addition, the Commission corrected a legal citation in Finding of Fact No. 46.c. from "33.231[a]" to "330.231(a)."

2. The Commission added new Ordering Provision No. 3, adopting the Executive Director's Response to Comments. Since this is a HB801 matter, Commission rule 30 TAC § 50.117(f) requires the Commission to either adopt the Executive Director's response to public comment in whole or in part or to prepare a Commission response. In this matter, the Commission determined that it was appropriate to wholly adopt the Executive Director's Response to Comments. The remaining ordering provisions were re-numbered accordingly to accommodate the addition of new Ordering Provision No. 3.

3. The Commission deleted proposed Finding of Fact No. 142 regarding transcript costs. The Commission determined that the proposed finding was irrelevant to the Commission's consideration on apportionment of transcript costs.

4. The Commission determined to modify proposed Finding of Fact Nos. 97-99, Conclusion of Law No. 14, and Ordering Provision No. 1.a. consistent with the Applicant's exceptions. The Commission determined that it was appropriate to limit the hours for waste acceptance and hours of other specified activities (*i.e.* transportation of materials on- and off-site and operation of heavy equipment) to those agreed to between the Applicant and Guadalupe County, as set forth in detail in the Applicant's exceptions.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IN ACCORDANCE WITH THESE FINDINGS OF FACT AND CONCLUSIONS OF LAW THAT:

1. Permit No. MSW-66B for a Type I MSW landfill in Comal and Guadalupe Counties, Texas, is hereby issued to Waste Management of Texas, Inc., as set out in Draft Permit No. MSW-66B, with the following modifications:

   a. The facility's waste acceptance hours should be Monday through Friday from 4:00 a.m. to 8:00 p.m. and Saturday from 4:00 a.m. to 3:00 p.m., unless an emergency requires extended waste acceptance hours; transportation of materials on- or off-site and operation of heavy equipment may be conducted Monday through Saturday, from 4:00 a.m. to 9:00 p.m., and on Sunday from 5:00 a.m. to 9:00 p.m.; other activities are not limited to specified hours and may be conducted by the facility, as necessary, at any time;

   b. Prior to construction of the new site entrance, Applicant shall submit documentation showing that the entrance will meet AASHTO standards; and

   c. As part of regularly scheduled training, Applicant will instruct its key site personnel about Mountain Plovers so that adverse impacts to the species may be avoided.

2. The Applicant shall pay $12,095.53 of the transcript costs, and TJFA shall pay the remaining $3,096.47.

3. The Commission adopts the Executive Director's Response to Public Comment in accordance with 30 TAC § 50.117.

4. The Chief Clerk of the Commission shall forward a copy of this Order to all parties and issue the attached permit as changed to conform to this Order.

5. All other motions, requests for specific Findings of Fact or Conclusions of Law, and other requests for general and specific relief, if not expressly granted, are denied for want of merit.

6. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of this Order.

7. The effective date of this Order is the date the Order is final, as provided by 30 TAC § 80.273 and TEX. GOV'T CODE ANN. § 2001.144.

ISSUED: OCT 01 2008

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Buddy Garcia

Buddy Garcia, Chairman
For the Commission